

### **Rejections Under 35 U.S.C. § 112 (Second Paragraph)**

Claims 17-19 stand rejected under 35 U.S.C. § 112 (Second Paragraph) as indefinite. The Examiner states that the term "low" is relative term and thus is indefinite. While Applicant traverses the Examiners assertion, in order to speed prosecution, claim 17 has been amended to delete the term "low". Claims 18 and 19 stand additionally rejected under 35 U.S.C. § 112 due to difficult language related to the use of sodium hypophosphite as a cure accelerator. In order to clarify the claims claim 17 has been amended to read "phosphite based regulating agent to form a phosphite regulated polyacrylic acid, said regulating agent being suitable for use as a crosslinking agent in a subsequent reaction step". This claim language clarifies that a phosphite based regulating agent is used during formation of the polyacrylic acid and that the phosphite based regulating agent is also useful as a crosslinking agent in a subsequent crosslinking step. Applicant respectfully submits that the claims, as amended are in compliance with 35 U.S.C. § 112 and requests that the rejection be withdrawn.

### **Rejections Under 35 U.S.C. § 102 (b) or 103(a)**

Claims 17 stands rejected under 35 U.S.C. § 102(b) in view of Arkens '213. Claims 17 has been amended to clarify that the phosphite regulated polyacrylic acid, includes a regulating agent being suitable for use as a crosslinking agent in a subsequent reaction step, and crosslinked by a polyhydroxy crosslinking agent carried out in a curing oven at a temperature from 200°C to 350°C for ½ to 3 minutes for a product having a binder lost-on-ignition (LOI) ranging from 1.4% to 25%. Arkens '213 does not contemplate a such a LOI nor infact does the Arkens '213 patent contemplate a binder LOI less that 28%. Infact except for the broad statement "In another embodiment the addition polymer may be formed in the presence of phosphorous-containing chain transfer agents such as, for example, hypophosphorous acid and its salts, as is disclosed in U.S. Pat. No. 5,077,361, which is hereby incorporated herein by reference, so as to incorporate the phosphorous-containing accelerator and the polyacid component in the same molecule." the Arkens '213 patent does not contemplate the strength, LOI or cure temperature for a binder incorporating the phosphorous-containing accelerator and the

polyacid component in the same molecule. Nor does the Arkens '213 patent teach the use of the phosphorous-containing accelerator and the polyacid component in the same molecule with an additional polyhydroxy crosslinking agent.

Claims 17-19 stand rejected under 35 U.S.C. § 103(a) in view of Arkens '213. Applicants have amended claim 17 in order to clarify that Arkens '213 does not contemplate the the subject matter of the instant invention and does not show or a suggest a patent teach the use of the phosphorous-containing accelerator and the polyacid component in the same molecule with an additional polyhydroxy crosslinking agent.

#### **Rejections under the Judicially Created Doctrine of Obviousness Type Double Patenting**

Claims 17-19 are rejected under the Judicially Created Doctrine of Obviousness Double Patenting as being not patentably distinct with respect to Chen '661. As stated above the claims as amended recite phosphite regulated polyacrylic acid, includes a regulating agent being suitable for use as a crosslinking agent in a subsequent reaction step, and crosslinked by a polyhydroxy crosslinking agent carried out in a curing oven at a temperature from 200°C to 350°C for ½ to 3 minutes for a product having a binder lost-on-ignition (LOI) ranging from 1.4% to 25%. Applicants respectfully submit that Chen '661 patent does not teach the use of the phosphorous-containing accelerator and the polyacid component in the same molecule with an additional polyhydroxy crosslinking agent.

#### **Conclusion**

In view of the above, Applicants respectfully submit that none of the references of record show or suggest Applicants' claimed invention, and it is submitted that the claims are in condition for allowance. Reconsideration of the rejections is requested and allowance of all pending claims at an early date is solicited. If any questions should arise with respect to the above Remarks, or if the Examiner has any comments or suggestions to place the claims in better condition for allowance, it is requested that the Examiner contact Applicant's attorney at the number listed below.

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Applicant authorizes any fees required pertaining to this response be charged  
to Deposit Account No. 50-0568.

Respectfully submitted,



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